Preface

MICCAI was formed by the joining of the vigorous strands of research in the fields of medical image analysis, computer assisted interventions, medical robotics, and visualization. In the past, these activities were highlighted in three parallel conferences: Visualization in Biomedical Computing (VBC), Medical Robotics and Computer Assisted Surgery (MRCAS), and Computer Vision, Virtual Reality, and Robotics in Medicine (CVRMED). All of these conferences originated in the early 1990's, with VBC having the longest tradition.

The substantial overlap of the research and the communities represented by these meetings led to the idea of forming a single international flagship meeting, to be held annually. A series of discussions quickly led to a unanimous agreement on the form of the conference: a representation of the highest possible quality of research in the combined community, to be selected by peer review from full papers and to be presented in a single track of oral and poster sessions. Slightly more time was needed to name the conference, and the community finally settled on MICCAI.

Due to the interdisciplinary nature of our emerging field, interested scientists are burdened with the need to train in additional areas – the computer scientists have to learn about medicine, while the medical doctors have to learn about computer science. Beyond the challenges of their own research, they have to address the issue of how to communicate their science to those in other fields. We hope that MICCAI will serve as a forum to encourage this cross-disciplinary discussion, and enable each sub-community to appreciate the issues of most concern to their counterparts.

We are delighted with the response from the community for this inaugural meeting, which is reflected by the high quality of the papers in these proceedings. The program chairs relied on our highly qualified program committee for the reviews. Each paper was reviewed independently by 2–4 reviewers, matched as well as possible in their background to the topic of the paper. For the final process, we assembled a group of senior members of the executive and program committees in Boston in order to decide on the papers. Of the 243 papers submitted for review, 134 were accepted for presentation. With such strong interest we can already plan for next year's meeting in England.

It is our distinct pleasure to welcome you to Boston and Cambridge. We look forward to an exciting conference.

October 1998

Takeyoshi Dohi, W. Eric L. Grimson and Ron Kikinis
General Co-Chairs
MICCAI98

Organization

First International Conference on
Medical Image Computing and Computer-Assisted Intervention
Massachusetts Institute of Technology, Cambridge, MA, USA
October 11–13, 1998

A unified conference formed by the merger of CVRMed, MRCAS, and VBC
Computer Vision, Virtual Reality and Robotics in Medicine, Medical Robotics
and Computer Assisted Surgery, Visualization in Biomedical Computing

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